

FEATURES
SOURCE

Query Match	9.78;	Score 386.8;	DB 34;	Length 503;
Best Local Similarity	88.28;	Pred. No. 2.2e-77;		
Matches 443; Conservative	0;	Mismatches 57;		

[illegible]

RESULT	4
R54387	
LOCUS	R54387
DEFINITION	y97612.r1 Soares Infant brain INTR Homo EST 18-MAY-1995

ACCESSION	R54387
VERSION	R54387.1
KEYWORDS	EST.
SOURCE	human.
ORGANISM	Homo sapiens

REFERENCE AUTHORS

TITLE
JOURNAL
COMMENT

Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia;
Eutheria; Primates; Catarrhini; Hominoidea; Homo.
1 (bases 1 to 517)
Hillier, L., Clark, N., Dubuque, T., Eilston, R., Hawkins, M.,
Holman, M., Hultman, M., Kucaba, T., Le, M., Lennon, G., Marra, M.,
Parsons, J., Rifkin, L., Rohlfing, T., Soares, M., Tan, F.,
Trevaskis, E., Waterston, R., Williamson, A., Woldmann, P. and
Wilson, R.
The WashU-Merck EST Project
Unpublished (1995)
Contact: Wilson RK
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: est@watson.wustl.edu
Insert Size: 2134
High quality sequence steps: 99 Source: IMAGE Consortium, LNL This
clone is available royalty-free through LNL; contact the IMAGE
Consortium (info@image.lnl.gov) for further information.
Insert Length: 2134 Std Error: 0.00
Seq primer: M3RPI
High quality sequence step: 99.
Insertion Quality:

FEATURES

```

/organism="Homo sapiens"
/db_xref="GDB:412032"
/db_xref="taxon:9606"
/clone="IMAGE:39491"
/clone_1ib=" Soares Infant Brain INTB"
/sex="female"
/dev_stage="73 days post natal"
/lab_host="DH10B (ampicillin resistant)"
/note="Organ: Whole brain; Vector: Lambda BA; Site:1: Not
1: Site:2: Hind iii; 1st strand cDNA was primed with a Not
I - oligo(dT) primer 15',
AATCGGAGAAATTCGCGCCGACAGCAATTTTTTTTTTTT 3');
double-stranded cDNA was ligated to Hind III adaptors
(Pharmacia), digested with Not I and directionally cloned
into the Not I and Hind III sites of the Lambda BA vector.
Library went through one round of normalization. Library
constructed by Bento Soares and M.Fátima Bonaldo."

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Query Match	7.38;	Score 293.6;	DB 22;	Length 517;
Best Local Similarity	85.68;	Pred. No. 2.9e-56;		
Matches 370;	Conservative 0;	Mismatches 55;	Indels 7;	

QY	1127	gacccccagacatccgggcagctgtcctaagtcgccccttgaagacttaaacatagctcga	1188
Db	1	GACCACAGACATTCGACAGTGGCTAAAGTGCCTTCAGAAATACTAAACATGTGCTCA	60
QY	1187	acaggggaacgcctctcatgagcaaacagaggtccccagccagacacgcctgagagatgcacg	1246
Db	61	ACAGAGAGACTGCTGTCGAGCAATGATGCTCCCGCCAGCCGACACTTGGAAGTGCATCA	120

BASE COUNT	81 a	106 c	82 g	57 t	1 others
ORIGIN					
Query Match					
Best Local Similarity	91.1%				
Matches 307; Conservative	0;	Mismatches 30;	Indels 0;	Gaps 0;	
OY 1126	CGAGCCCAAGACATCCCGGAGAGTGTGATATGTGTCCTTTAGAGAGCTAAACATGATTC				1185
DB 1	CGACCAACAGACATTCGGACAGCTGTGAATGTCTCCCTTCAGAGACTTAACATATACCTGC				60
OY 1186	AACAGAGAGACTGCGCTGT				1245
DB 61	AACAGAGAGACTGCGCTGT				120
OY 1246	GCCAAACATGATGAGT				1305
DB 121	ACCAACACATGATGAGT				180
OY 1306	ACCTTATCAGAGACACCCCTCTATGACAGAGCCGCTGTGTGTGTGTGTGTGTGTGTGT				1365
DB 181	ACCTTATCAGAGACACCCCTCTATGACAGAGCCGCTGTGTGTGTGTGTGTGTGTGTGT				240
OY 1366	CTGCTGTCTACTACAGATACAGCCCTATCTCAGAGTGTGTGTGTGTGTGTGTGTGTGT				1425
DB 241	CTGCTGTCTACTACAGATACAGCCCTATCTCAGAGTGTGTGTGTGTGTGTGTGTGTGT				300
OY 1426	TCAGGGAAGAGATGATGT				1462
DB 301	TCAGGGAAGAGATGATGT				337
RESULT 6					
LOCUS	T09073	364 bp	EST	03-AUG-1993	
DEFINITION	EST006966 Infant Brain, Bento Soares Homo sapiens cDNA clone HIB071				
ACCESSION	T09073				
VERSION	T09073.1	GI:390101			
KEYWORDS	EST.				
SOURCE	human.				
ORGANISM	Homo sapiens				
REFERENCE	Eukaryote: Metazoa; Chordata; Craniata; Vertebrata; Mammalia;				
AUTHORS	Eutheria; Primates; Catarrhini; Homiidae; Homo.				
TITLE	1 (bases 1 to 364)				
ADDITIONAL	Adams,M.D., Soares,M.B., Kerlavage,A.R., Fields,C. and Venter,J.C.				
ABSTRACT	Rapid cDNA sequencing (expressed sequence tags) from a				
KEYWORDS	directionally cloned human infant brain cDNA library				
COMMENT	Nature Genet. 4, 373-380 (1993)				
JOURNAL	94004965				
MEDLINE	Contact: Adams, MD				
COMMENT	The Institute for Genomic Research				
	932 Clopper Road, Gathersburg, MD 20878				
	Tel: 3018699056				
	Fax: 3018699423				
	Email: mdadams@tigr.org				
	Seq primer: M13 Reverse.				

us-09-284-180-1.rst

BASE COUNT	81 a	106 c	82 g	67 t	1 others
ORIGIN					
Query Match		7.2%:	Score 289.6;	DB 20;	Length 337;
Best Local Similarity		91.1%:	Pred. No. 2e-55;		
Matches 307; Conservative		0;	Mismatches 30;	Indels 0;	Gaps 0.
Oy	1126	cgaccacaagacatccgggcagctgtcgaattgaccttaagaagactaaacaatacctgac	1185		
Dd	1	CGACCACAAGACATTCGGGACAGTGTGAATGTCTCCCTCAGAGAACTAAACATGACTTC	60		
Oy	1186	aacaaaggagactgcctgtcatgagcaaacgaagtgtcccagccccagacctggagaatgtgacac	1245		
Dd	61	AACAGAGGACTCCCTGTGTGTGGACATATGATGCCCAAGCCAGACCTGTGAAGATGCATCC	120		
Oy	1246	gccaaacaatagaagctccacagcagtttgatccctaactctcccttcgcagaccgsgtgc	1305		
Dd	121	ACCAACAACATGAAGCTCCGGCACATTGGCTCATCTCTCCCTGCCTGACCGGCTACTC	180		
Oy	1306	accttatcacagagaccacctctctatgtgacagagcccggtgtcccgactgaagagcgcccc	1365		
Dd	181	ACCTTCATCCCGGAGCACCACCACTCATGACAGACGCGAGTGTTCACAGTGTAATGCCACCCC	240		

Query Match	Similarity	7.2%	Score 289.6	DB 20	Length 337
Best Local Similarity	91.1%	Pred. No. 2e-55			
Matches 307	Conservative	0	Mismatches 30	Indels 0	Gaps 0
Oy	1126	gcaccaccaagatcccgagcagctgtcatgtatggtccctttagagagctaaacatgactgac	1185		
Db	1	CGACACCAAGACATTCGGGACAGTGGTGAATGGTCCCTTCAGAGACTAAACATGACTGC	60		
Oy	1186	aacagggagctgctctgtcatgtgacaaagaagtgtccccaagcccaagcctcggaaagtgcac	1245		
Db	61	AACACAGAGACTGCCGTGTTGTCACATATATGTGCCACCCACGACCTGTGAAGATGTCACTC	120		
Oy	1246	gccaaacaacatgaagctccagcagagtttgatctctacatctccctcgcagacgcgtgctc	1305		
Db	121	ACCAACAAACATATAACTCCGACACTTTGGCTATCTCTCTCCCTGCCTGACCGGCTACTC	180		
Oy	1306	acccttatcagagaccacctctcatatgtgacagagcccggtgtgtccgagctgaacggccccc	1365		
Db	181	ACCTTCATCCGGGACCACCCACTCATGTGACAGGCGAGTGTTCACAGCTGATGGCCACCCC	240		
Oy	1366	ctgtctgttcaactaacagataacagccctatcttcgaagtcgtggtgcccacaaggttgaccagcttc	1425		
Db	241	CTGCTGGTCACTACACAGTTACACGCTCATCTCAAGCTGTGGCCCAAGAGGTGACCAAGCTTC	300		
Oy	1426	tcaaggaaagaatatgacgctgtctctacctcgtggagacac	1462		
Db	301	TCAGGGAAGAGATATGATGTGCTCTCACTCGGGAGACAG	337		

LOCUS	T09073	364 bp	mRNA	EST	03-AUG-1993
DEFINITION	EST069966 Infant Brain, Bonto Soares, Homo sapiens CDNA clone HIBB071				
ACCESSION	T09073				
VERSION	T09073.1	GI:390101			
KEYWORDS	EST.				
SOURCE	human.				
ORGANISM	Homo sapiens				
	Euthariota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia;				
	Eutheria; Primates; Catarrhini; Homiidae; Homo.				
REFERENCE	1 (bases 1 to 364)				
AUTHORS	Adams,M.D., Soares,M.B., Kerlavage,A.R., Fields,C. and Venter,J.C.				
TITLE	Rapid CDNA sequencing (expressed sequence tags) from a				

JOURNAL
MEDLINE
COMMENT
94004965
Contact: Adams, MD
The Institute for Genomic Research
932 Clopper Road, Gaithersburg, MD 20878
Tel: 3018699056
Fax: 3018699423
Email: madams@igf.org
Seq primer: M13 Reverse.
Location/Qualifiers

```

SOURCE
1. 364
/originism="Homo sapiens"
/db_xref="ATCC (inhost):85555"
/db_xref="taxon:9606"
/clone="HIB071"
/clone_lib="Infant Brain, Bento Scores"
BASE COUNT 70 a 100 c 106 g 85 t 3 others
ORIGIN

Query Match 7.2%; Score 287.4; DB 20; Length 364;
Best Local Similarity 86.5%; Pred. No. 6.5e-55;
Matches 315; Conservative 0; Mismatches 49; Indels 0; Gaps 0.

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356 RAVLNGPREFELKH-DCNRLPVNDNEVPQRPCECIANNMKLQOEGSSLSLDPRLVTFIR 414
 375 SHTLDEAV-PAFTRPILIRISLOAFKIAVDOOVRTPKADVLEIGTDGKVIKA 433
 415 DHPILDRPVPFAD-GRPLVTTDTAV-L-RV-VAHVSTLSKEVDVLYLGEDGHLHA 470
 434 INSASFSSDVTVDVYIEELQVLPQGVPKLYVVMGDSKLVVSDDEILAIKLHRC 493
 471 VR---I-GAQ-L-SV-LEDLALFPEQPVESM---KLX-HDW-LVYGHTEVTQVNTSNC 518
 494 GSDKTNCRECVSLDDPYCAM 514
 519 G--RLQSCSECTLAQDPVCAM 537
 RESULT 13
 ID M57259 standard; Protein: 929 AA.
 02-SEP-1998 (first entry)
 DE rat; semaphorin Y.
 KW rat; semaphorin Y; nerve extension inhibitor; central nervous system;
 OS peripheral nerve growth.
 PN 08811216-A1.
 PD 09-MAR-1998.
 PF 09-SEP-1997; J03167.
 PR 08-AUG-1997; JP-227220.
 PA 11-SEP-1996; JP-263565.
 PI (SUMU) SUMITOMO PHARM CO LTD.
 PI Kikuchi K, Kimura T;
 DR WPI: 98-250958/22.
 DR N-PSDB: V28913, V28914.
 PT DNA encoding human and rat semaphorin Y - an inhibitor of nerve
 extension.
 PS Claim 1: Page 54-58; 85pp; Japanese.
 CC The present sequence represents rat semaphorin Y, which inhibits nerve
 extension. Semaphorin Y genes and proteins may be used to inhibit
 peripheral nerve growth. Semaphorin Y antagonists can be used to
 accelerate regrowth of the central nervous system.
 SQ Sequence 929 AA;

Query Match 13.0%; Score 735; DB 1; Length 929;
 Best Local Similarity 36.2%; Pred. No. 2,026-94;
 Matches 148; Conservative 95; Mismatches 137; Indels 29; Gaps 20;
 69 NRTLLVAARDHVFSDLAQEEGELVFNKFLTR-SQ-DENCAVRKLTDECYNIRV 126
 79 SHTLVGARDISFALTLPF--SGE--RRRR-IDMWVPEHNRCKKCKKEDCHNFIOI 133
 127 LVPMDSTLLACGTNSFSPVCRSYGTSLOEGEEL-SGARCPDPAOSTVAISAESL 185
 134 LAIVASHLLTCGTFAPDKCGVIDVSSFOY-ERLESGRKCPPEPORAANAAGVYL 192
 186 YSATADPOASDAVYRSLGPOP-IRSAKYDSKWLREPHVQA--L-----EHGDH- 234
 193 YTAIVKNLGEPIISRAVGRADMIRTELSS-WLNAPAVAAVLSPAEMGEDDGDDE 251
 235 VYFPEPERSLARTPGISGVSRVAVCKRDMGSPRALDRHMTSFLKRLNCSPVGDST 294
 252 IFFFEFTERS-VYLDSEYERIKVPRVARCAGDLGR-KTLQORWTFLEADLLCPGEHGR 309
 295 FYFDVQLSLTGVPVNLHGSA-LF-GVPTTQNTSIPGSAVCAFYLDIERGEGEKKEORS 352
 310 AS-GVLQAMAEILRPPQAGTPIFYGIFSSQWEGAISAIVCAFRRPDDIAVINGPREFELKH 368
 333 LDGAMT-VVSEDRVSPSPGSCAGVG-ALFSSSRDLPDDVLTFIRANPLDPAVPPVT 410
 369 -DCNRGLPVMDNEVPQRPCECIANNMKLQOEGSSLSLDPRLVTFIRHPLMDRVPFAD 427
 411 HOPLLTISRALLTOVAVDAGNAGPHRNTTVFLGSDGTVLYKVLTPGCG 459
 428 GRPLVTTDTAVLYLRVAVHRTVSLSGKEVDVLYLGEDGHLHRAVIGAQ 476

RESULT 14
 ID M57260 standard; Protein: 930 AA.
 AC W57260;
 DT 02-SEP-1998 (first entry)
 DE Human semaphorin Y.
 KW Human; semaphorin Y; nerve extension inhibitor; central nervous system;
 OS Homo sapiens.
 PN 08811216-A1.
 PD 09-MAR-1998.
 PF 09-SEP-1997; J03167.
 PR 08-AUG-1997; JP-227220.
 PA 11-SEP-1996; JP-263565.
 PI (SUMU) SUMITOMO PHARM CO LTD.
 PI Kikuchi K, Kimura T;
 DR WPI: 98-250958/22.
 DR N-PSDB: V28915, V28916.
 PT DNA encoding human and rat semaphorin Y - an inhibitor of nerve
 extension.
 PS Claim 1: Page 65-70; 85pp; Japanese.
 CC The present sequence represents human semaphorin Y, which inhibits
 nerve extension. Semaphorin Y genes and proteins may be used to inhibit
 peripheral nerve growth. Semaphorin Y antagonists can be used to
 accelerate regrowth of the central nervous system.
 SQ Sequence 930 AA;

Query Match 12.9%; Score 732; DB 1; Length 930;
 Best Local Similarity 36.2%; Pred. No. 3,836-54;
 Matches 148; Conservative 94; Mismatches 137; Indels 30; Gaps 20;
 70 NRTLLVAARDHVFSDLAQEEGELVFNKFLTR-SQ-DENCAVRKLTDECYNIRV 127
 79 SHTLVGARDISFALTLPF--SGE--RRRR-IDMWVPEHNRCKKCKKEDCHNFIOI 133
 128 LVPMDSTLLACGTNSFSPVCRSYGTSLOEGEEL-SGARCPDPAOSTVAISAESL 186
 134 LAIVASHLLTCGTFAPDKCGVIDVSSFOY-ERLESGRKCPPEPORAANAAGVYL 192
 187 YSATADPOASDAVYRSLGPOP-IRSAKYDSKWLREPHVQA--L-----EHGDH- 235
 193 YTAIVKNLGEPIISRAVGRADMIRTELSS-WLNAPAVAAVLSPAEMGEDDGDDE 251
 236 VYFPEPERS-VEDARLGVQTSRVARVCKRDMGSPRALDRHMTSFLKRLNCSPVGDST 294
 252 IFFFEFTERSVLDSEYERIKVPRVARCAGDLGR-KTLQORWTFLEADLLCPGEHGR 309
 295 FYFDVQLSLTGVPVNLHGSA-LF-GVPTTQNTSIPGSAVCAFYLDIERGEGEKKEORS 352
 310 AS-GVLQAMAEILRPPQAGTPIFYGIFSSQWEGAISAIVCAFRRPDDIAVINGPREFELKH 368
 333 LDGAMT-VVSEDRVSPSPGSCAGVG-ALFSSSRDLPDDVLTFIRANPLDPAVPPVT 410
 369 -DCNRGLPVMDNEVPQRPCECIANNMKLQOEGSSLSLDPRLVTFIRHPLMDRVPFAD 427
 411 HOPLLTISRALLTOVAVDAGNAGPHRNTTVFLGSDGTVLYKVLTPGCG 459
 428 GRPLVTTDTAVLYLRVAVHRTVSLSGKEVDVLYLGEDGHLHRAVIGAQ 476
 RESULT 15
 ID R71384 standard; Protein: 712 AA.
 AC R71384;
 DT 21-NOV-1995 (first entry)
 DE Tribolium semaphorin I protein.
 KW Semaphorin; grasshopper; human; vaccinia virus; Drosophila; Tribolium;
 KW varicella major virus; smallpox; semaphorin receptor binding activity;
 KW modulation; nerve cell growth; immune response; viral pathogenesis;
 OS Tribolium sp.
 PN W09507706-A.
 PD 23-MAR-1995.

